

**ABSTRACT OF THE DISCLOSURE**

An apparatus and a method for separating a digital broadcasting signal from data transmitted using an IP network, transmits an IP packet at wire-speed by performing a comparison of an IP address in a hardware scheme without a special memory when separating Internet data and digital broadcasting data (MPEG-TS) in an IP network-based digital broadcasting signal process unit. The digital broadcasting signal separation apparatus includes a reception buffer for receiving the IP packet transmitted through a transmission media; an extractor for copying an IP header from the IP packet outputted from the reception buffer and for extracting the IP header only; a comparator for comparing the address of the IP header extracted from the IP header extractor with the address of the IP header stored in the register; a register for storing a multicast IP address value or a unicast IP address value which includes information on broadcasting channel established by the user; an IP packet path processing unit for selecting an IP packet path according to the result value of the comparison outputted from the comparator; a transmission buffer for transmitting the IP packet in order to return the IP packet from the IP packet path processing unit to the computer, in case that the result value of the comparison of the comparator is determined to be an IP address corresponding to normal Internet data; and an MPEG-TS processing unit for processing the IP packet outputted from the IP packet path processing unit, in case that the result value of the comparison of the comparator is determined to be an IP address corresponding to the digital broadcasting signal.